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Janet Campbell, Editor

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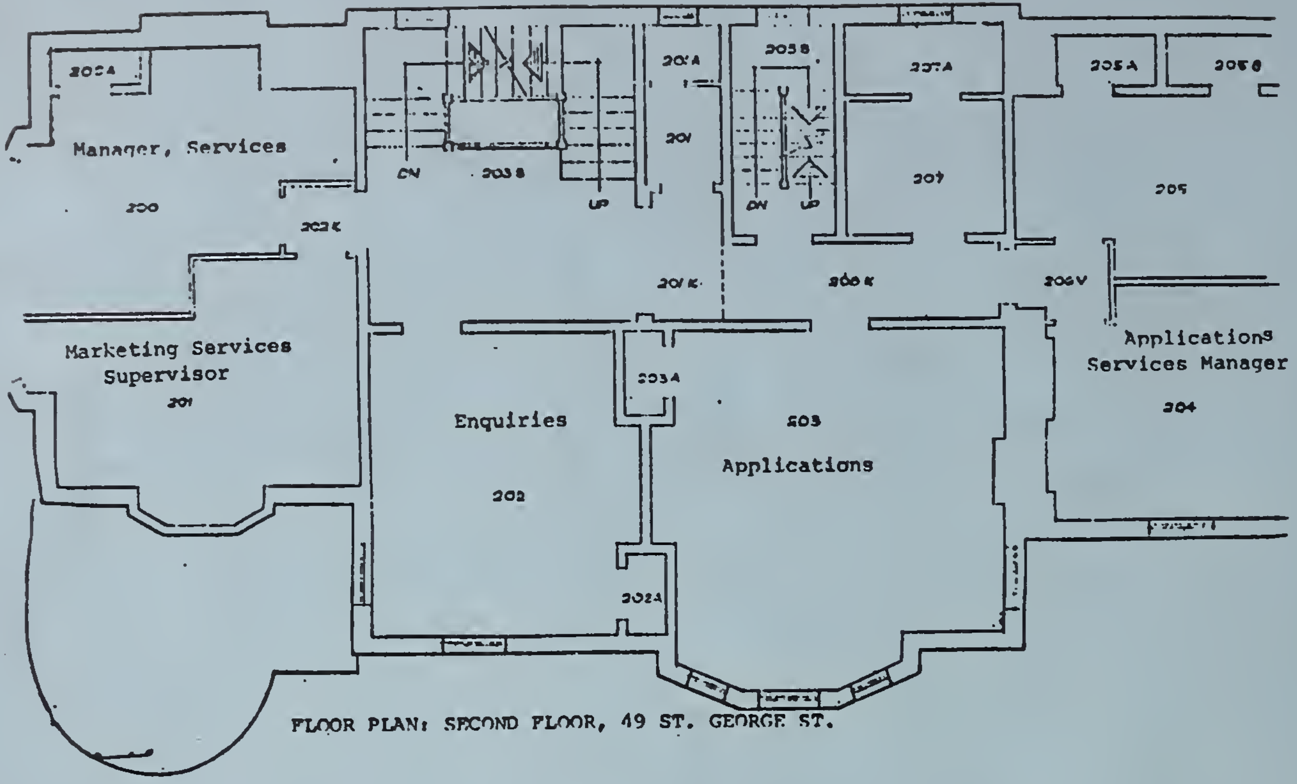
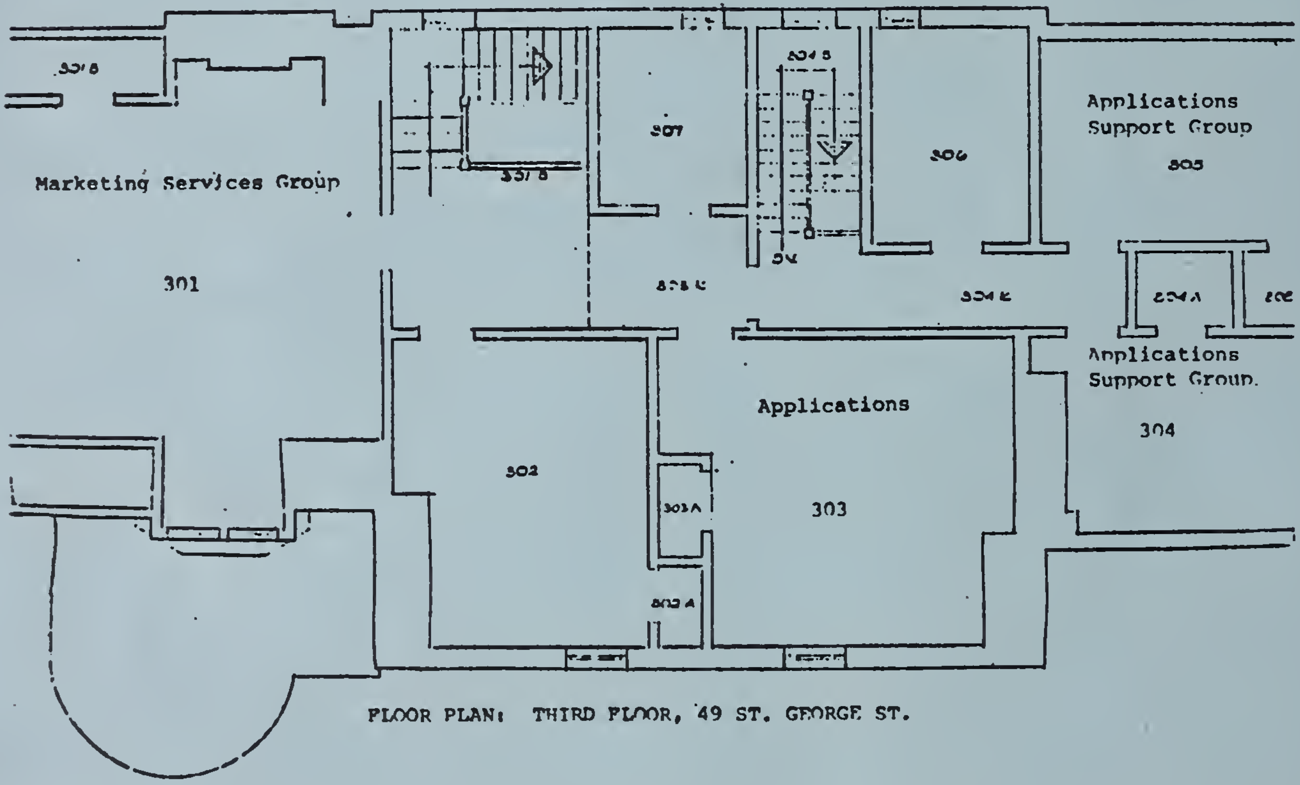


FLOOR PLAN: SECOND FLOOR, 49 ST. GEORGE ST.



FLOOR PLAN: THIRD FLOOR, 49 ST. GEORGE ST.

COMPUTERNEWS is a monthly publication produced by the University of Toronto Computer Centre. Enquiries or contributions should be directed to the Editor, Janet Campbell or the Assistant Editors, Margo Harvie and Ruth Borenstein in the Sandford Fleming Building room SF125 or (416)-928-2066. Layout and ATS typing are provided by Lynne Jenkins. Subscription changes should be directed to the Information Office, Sandford Fleming Building room SF128 or (416)-928-4990.

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COMPUTERNEWS QUESTIONNAIRE

In our efforts to evaluate and improve our newsletter, a COMPUTERNEWS questionnaire has been included as a supplement to this month's issue of COMPUTERNEWS. All subscribers are asked to complete the questionnaire and return it to the Publications Group as soon as possible. Your efforts in doing so will be greatly appreciated. This questionnaire is pre-addressed and can be returned free-of-charge via campus mail.

Janet Campbell

The following article is reprinted from the SIGUCC Newsletter, Volume 5 - Number 2, May 1975.

1975 ACM GEORGE E. FORSYTHE STUDENT PAPER COMPETITION

An opportunity to submit your original ideas on any topic related to computers and their applications.

Best papers will be published in Communications of the ACM and the authors will receive awards.

Any student who has not received a bachelor's degree before April 1, 1975, is eligible. Due date for paper is September 15. Due date for stating intent to send a paper is July 31. Receipt of paper will be acknowledged. For details, see April 1975 issue of Communications of the ACM.

Write to:

ACM Student Editorial Committee
Department of Computer Science
University of Toronto
Toronto, Ontario, Canada M5S 1A7

SHORT TERM RENTAL OF DATAMEX TERMINALS

UTCC has a limited number of DATAMEX terminals available for short term rental. These terminals are fully portable and support APL and ASCII character sets (upper and lower case). Rental rates are currently set at $10 per day or $175 per month and the bill may be paid from the user's CAN.

Anyone interested in renting a DATAMEX terminal should contact Di-Anne Madill at 928-5270 or Stan Yagi at 928-7331.

Stan Yagi

The following article is reprinted from the SIGUCC Newsletter, Volume 5 - Number 2, May 1975.

CHESS, ANYONE?

Entries are being solicited for the Sixth United States Computer Chess Championship to be held as part of the 1975 Annual Conference of the ACM in the twin cities of Minneapolis/St. Paul, Minnesota on October 20-22, 1975. A four round Swiss style tournament is planned.

cont'd...

CHESS, ANYONE? Cont'd.

In addition, a special exhibition will be given by David Levy, an International Master from England, who will take on all entrants simultaneously. The field is limited to twelve teams.

Entry forms can be obtained by writing to Monroe Newborn, Department of Electrical Engineering and Computer Science, Columbia University, New York, New York 10027. The deadline for entries is September 1, 1975.

Last year, RIBBIT, a program written by Jim Parry, Ron Hansen and Russell Crook captured the title by upsetting CHESS 4.0, the work of David Slate and Larry Atkin of Northwestern University. CHESS 4.0 had been champions since the first ACM tournament in 1970. The tournament is being organized by Dr. Newborn, Ben Mittman of the Vogelback Computer Center, Northwestern University, and Richard Harbeck of Hastings, Minnesota.

If you are really serious there is a new book available on computer chess.

The latest in the ACM Monograph Series, Computer Chess, by Dr. Monroe Newborn, was published by Academic Press in April. Professor Newborn, of the Department of Electrical Engineering and Computer Science at Columbia University, is a leading authority on the subject, and has been a key organizer of the annual computer chess championships held at ACM Annual Conferences.

The 200-page book presents thirty-eight games between computer and computer or between computer and man, including games from the first United States Computer Chess Championship and games played recently by Soviet computer programs. It makes fascinating reading for computer scientists and chess buffs alike.

The ACM Monograph Series is edited by Professor Robert L. Ashenhurst of the University of Chicago.

Computer Chess is available from the publisher prepaid at $15.00 with 20% off for ACM members. Order directly from Academic Press, 111 Fifth Avenue, New York, N.Y. 10003.

NON-CREDIT APL COURSE

An addition has been made to the summer schedule of non-credit courses and seminars that appeared in last month's COMPUTERNEWS. Anyone interested in attending the following course should fill out the registration form which appears as a supplement to this issue of COMPUTERNEWS.

INTRODUCTION TO APL

Prerequisite: Must hold either a CAN or an APL account
Dates: August 11, 13, 14
Time: 3-5 p.m.
Maximum # of Registrants: 20
Instructor: R. Thompson

cont'd...

INTRODUCTION TO APL Cont'd.

APL is a precise and powerful computational tool. This course is intended to provide an introduction for the novice user to interactive computing using APL (A Programming Language). A major part of the course will be spent in work sessions at the terminal.

Don Gibson

MINICOMPUTER USER'S MEETING

There will be a get-together of mini-computer users on July 24, 1975, at 2:00 p.m. in room 202 of the GALBRAITH building.

The purpose of this meeting is:

To discuss:

- what kinds of mini's are being used
- what kinds of jobs are being solved by mini's
- what future applications of mini's are being discussed
- what mini users are doing about hardware and software

To:

- form an official liaison with the University of Toronto to promote the interests of mini-computer users
- to consider a University of Toronto centralized hardware maintenance scheme
- to avoid costly duplication of effort by sharing hardware and software expertise through informal get-togethers
- to avoid costly duplication of effort by sharing hardware and software experience through informal get-togethers
- to consider a mini to IBM 370 remote job entry package supported by the Computer Centre

Any other topic of importance to mini computer users.

The Mini Computer User's Group is a group of interested users trying to be of mutual assistance to each other.

Anyone interested in mini computers is invited to attend this meeting or contact:

John Rylaarsdam
Department of Geology
928-5177

John Kornatowski
Department of Zoology
928-5303

Stan Yagi

NEW OFFLINE DATASET HANDLING PROCEDURES

Users of the General Purpose Job Stream have access to the SCRATCH and ALLOC procedures to scratch and allocate online datasets. Similarly, the RLSEPDS and RLSESEQ procedures are used to release unused space in partitioned and sequential datasets. These procedures were designed primarily for online storage.

In addition, UTCC has defined several new procedures to aid users whose datasets reside on offline 2314 packs. A description of these new procedures appears in the UTCC Technical Bulletin No. 1. Copies of Technical Bulletins may be obtained from the Advising Office SF117, the Terminal Co-ordinators and from the Information Office, SF128.

Herb Kugel

NEW LABELS PROGRAM AVAILABLE

OISE, the Ontario Institute for Studies in Education has released its label printing program for use at UTCC. The OISE program accepts input data in a format which is different from that used by the labels program currently in use at UTCC.

Documentation on the OISE labels program will be prepared for inclusion in USERBOOK. In the interim, any user interested in seeing this program's format may contact Herb Kugel at 928-7286.

Herb Kugel

ISAM UTILITY AVAILABLE

UTCC has noticed an increase in the number of ISAM datasets being used. A unique programming aide has been obtained from the Share Library, which may prove helpful to users.

Users working with ISAM who would like to know more about this programming aid, should call Herb Kugel at 928-7286.

Herb Kugel

S/370-165-II RELIABILITY

The reliability statistics for May indicate an uptime percentage of 99.4 while the average number of IPL's per day reached 0.60. The number of scheduled hours of production for May totalled 466.

MONTHLY COMPARATIVE FIGURES

MONTH	% UPTIME	UNSCHED. IPLs/DAY
Jan/74	97.0	1.37
Feb/74	98.3	1.25
Mar/74	98.7	1.06
Apr/74	99.3	0.52
May/74	99.2	0.87
Jun/74	96.1	0.75
Jul/74	91.7	1.66
Aug/74	98.3	0.86
Sep/74	94.5	1.83
Oct/74	98.6	1.07
Nov/74	98.9	0.93
Dec/74	97.1	1.21
Jan/75	95.7	2.77
Feb/75	96.0	1.14
Mar/75	96.7	1.10
Apr/75	98.6	0.70
May/75	99.4	0.60

cont'd...

S/370-165-II RELIABILITY Cont'd.

The percentage breakdown of total system downtime for May was:

Hardware: 70 minutes (29.9%)
Software: 50 minutes (21.4%)
Other : 114 minutes (48.7%)

The major events contributing to these downtime totals were as follows:

May 2: 63 minutes down - 6 IPLs

a. 48 minutes were attributed to numerous double bit errors in ITEL memory. The S/370 system was run with only two megabytes of memory online for a period of 4 1/2 hours while awaiting maintenance. A number of bad cards were replaced (5 IPLs).

b. 15 minutes were caused by a system loop on the 3704 controller. It was reloaded successfully (1 IPL).

May 8: 47 minutes down - 2 IPLs

a. 40 minutes were due to recovery actions by the Operator when a circuit breaker tripped in the power distribution unit and could not be reset properly. The motor generator was powered off and on to correct the error (1 IPL).

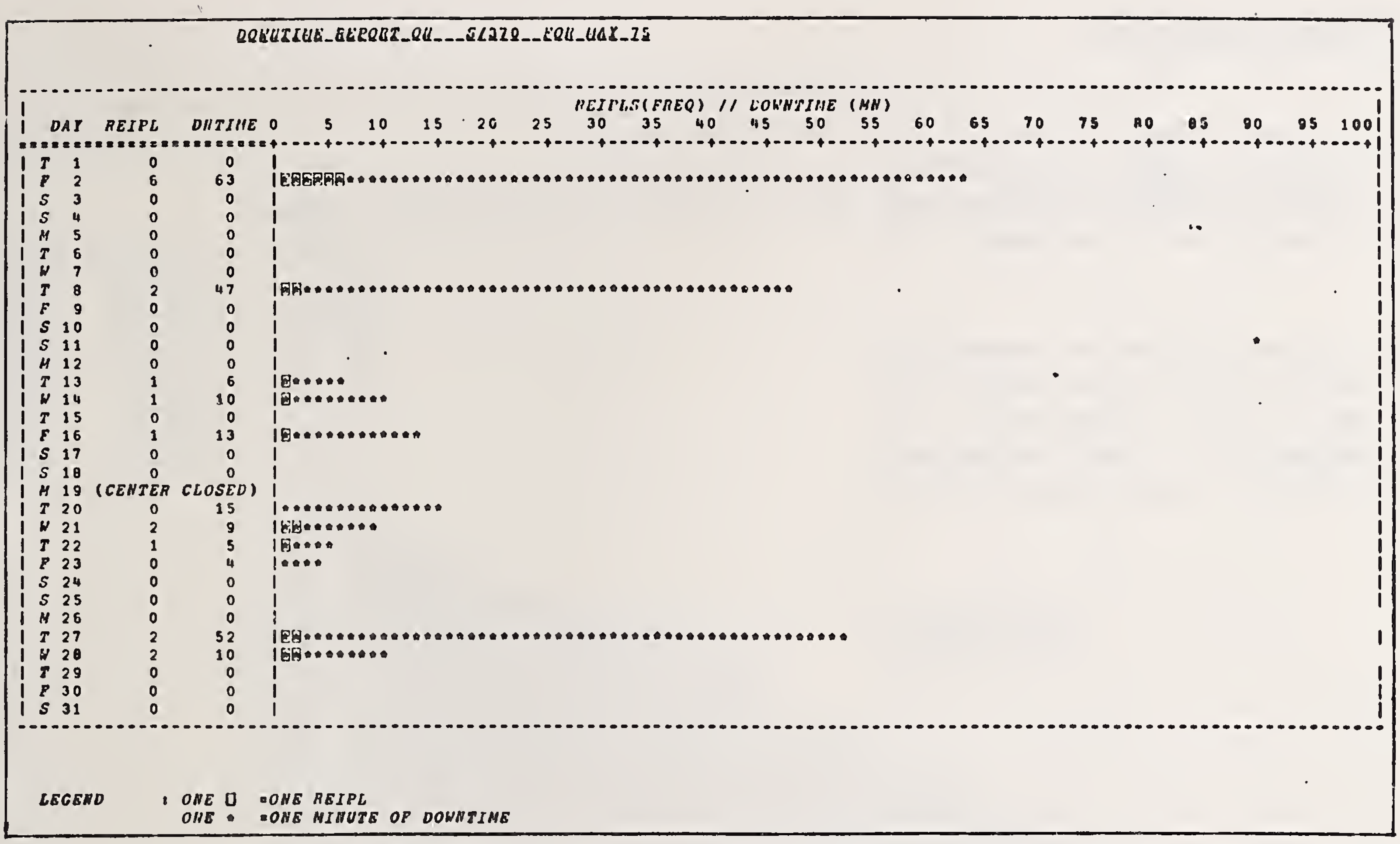
b. 7 minutes were charged to a two step supervisor loop (1 IPL).

May 27: 52 minutes down - 2 IPLs

a. 7 minutes were attributed to a supervisor loop after the GOULD writer was cancelled (1 IPL).

b. 45 minutes were caused by the main machine room temperature reaching 25 degrees centigrade (78 F). The S/370 was powered off for a short period while corrective maintenance was performed by Physical Plant (1 IPL).

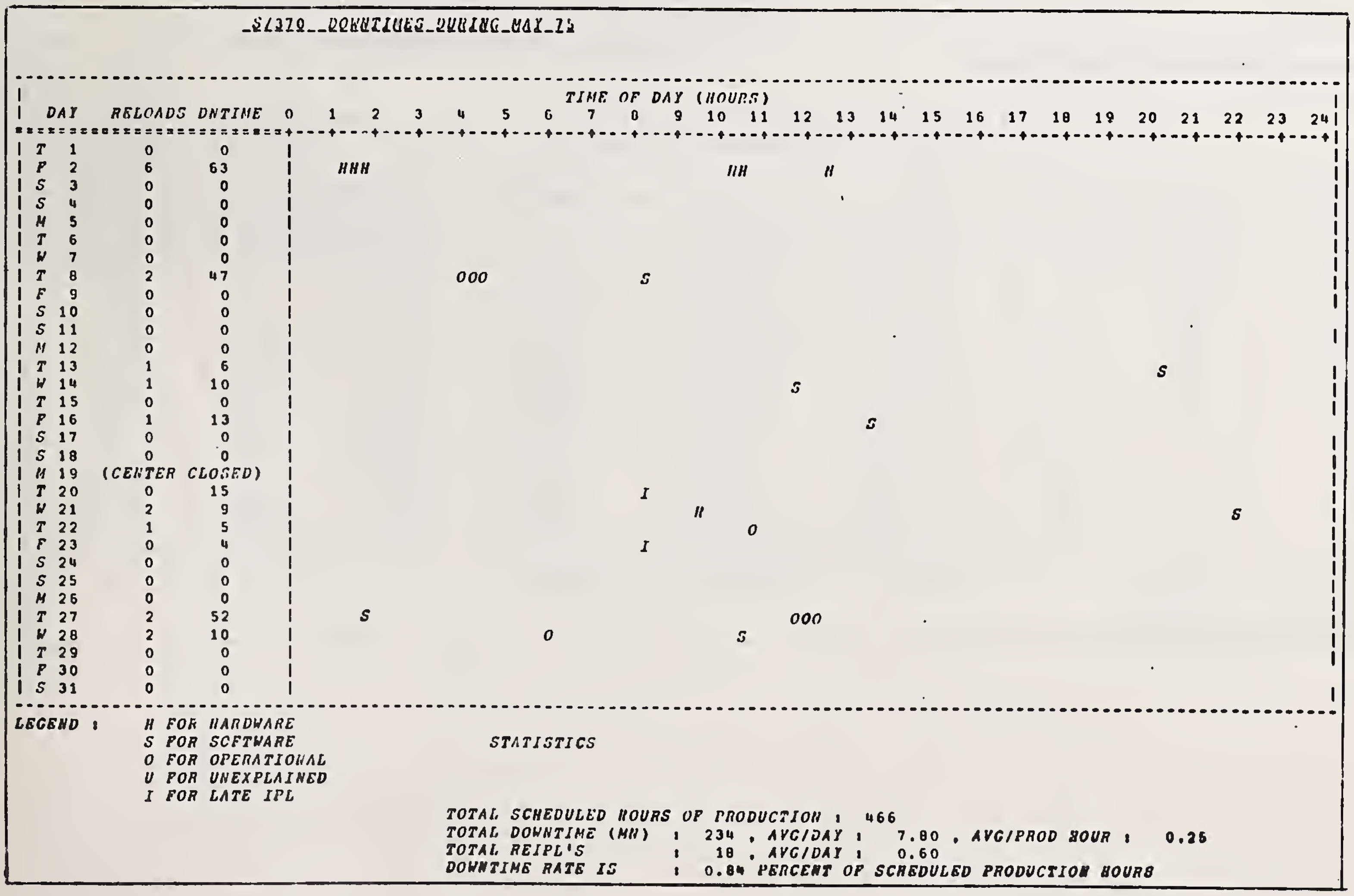
Paul Scarborough



```
                   DOWNTIME_REPORT_ON___S/370__FOR_MAY_75


---------------------------------------------------------------------------------------------------------------------------
|                                                     REIPLS(FREQ) // DOWNTIME (MN)                                       |
| DAY  REIPL   DNTIME 0    5   10   15   20   25   30   35   40   45   50   55   60   65   70   75   80   85   90   95  100|
*=====================+----+----+----+----+----+----+----+----+----+----+----+----+----+----+----+----+----+----+----+----+|
| T  1       0      0 |
| F  2       6     63 |□□□□□□*********************************************************
| S  3       0      0 |
| S  4       0      0 |
| M  5       0      0 |
| T  6       0      0 |
| W  7       0      0 |
| T  8       2     47 |□□*********************************************
| F  9       0      0 |
| S 10       0      0 |
| S 11       0      0 |
| M 12       0      0 |
| T 13       1      6 |□*****
| W 14       1     10 |□*********
| T 15       0      0 |
| F 16       1     13 |□************
| S 17       0      0 |
| S 18       0      0 |
| M 19 (CENTER CLOSED) |
| T 20       0     15 |***************
| W 21       2      9 |□□*******
| T 22       1      5 |□****
| F 23       0      4 |****
| S 24       0      0 |
| S 25       0      0 |
| M 26       0      0 |
| T 27       2     52 |□□**************************************************
| W 28       2     10 |□□********
| T 29       0      0 |
| F 30       0      0 |
| S 31       0      0 |
---------------------------------------------------------------------------------------------------------------------------


  LEGEND      : ONE □  =ONE REIPL
                ONE *  =ONE MINUTE OF DOWNTIME
```



```
                          _S/370__DOWNTIMES_DURING_MAY_75


-------------------------------------------------------------------------------------------------------------------------
|                                                   TIME OF DAY (HOURS)                                                  |
| DAY   RELOADS DNTIME  0   1   2   3   4   5   6   7   8   9  10  11  12  13  14  15  16  17  18  19  20  21  22  23  24|
*=======================+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+---+|
| T  1       0       0  |
| F  2       6      63  |    HHH                                HH        H
| S  3       0       0  |
| S  4       0       0  |
| M  5       0       0  |
| T  6       0       0  |
| W  7       0       0  |
| T  8       2      47  |               OOO              S
| F  9       0       0  |
| S 10       0       0  |
| S 11       0       0  |
| M 12       0       0  |
| T 13       1       6  |                                                                                S
| W 14       1      10  |                                              S
| T 15       0       0  |
| F 16       1      13  |                                                     S
| S 17       0       0  |
| S 18       0       0  |
| M 19  (CENTER CLOSED) |
| T 20       0      15  |                                I
| W 21       2       9  |                                     H                                                 S
| T 22       1       5  |                                          O
| F 23       0       4  |                                I
| S 24       0       0  |
| S 25       0       0  |
| M 26       0       0  |
| T 27       2      52  |      S                                      OOO
| W 28       2      10  |                       O                 S
| T 29       0       0  |
| F 30       0       0  |
| S 31       0       0  |
-------------------------------------------------------------------------------------------------------------------------
LEGEND :      H FOR HARDWARE
              S FOR SOFTWARE                    STATISTICS
              O FOR OPERATIONAL
              U FOR UNEXPLAINED
              I FOR LATE IPL
                                       TOTAL SCHEDULED HOURS OF PRODUCTION :  466
                                       TOTAL DOWNTIME (MN)   :  234 , AVG/DAY :   7.80 , AVG/PROD HOUR :   0.25
                                       TOTAL REIPL'S         :   18 , AVG/DAY :   0.60
                                       DOWNTIME RATE IS      :  0.84 PERCENT OF SCHEDULED PRODUCTION HOURS
```

HSJS MONTHLY STATISTICS

During the month of May, 1975, 171,028 jobs were processed compared with 94,694 jobs for the previous year, an increase of 80.6%.

The following charts summarize the HSJS activity for the month of May. The graph represents the average number of jobs processed during each half hour period of the day.

Mark Tapia

RESOURCE USAGE BY PROCESSOR

			TOTAL PER PROCESSOR			AVERAGE PER USE		
PROCESSOR	#USES	%TOTAL	CPU (MIN)	#CARDS READ	#LINES PRINTED	CPU (MIN)	#CARDS READ	#LINES PRINTED
WATFIV	117906	(69)	1265.42	16298439	19637130	0.008	136	164
PL/C	22130	(13)	335.25	2708848	5672117	0.012	120	256
OTHER*	10608	(6)	143.58	792566	1582975	0.012	72	148
UTILITY	7042	(4)	24.64	1318512	1621178	0.000	184	228
WATBOL	6435	(4)	90.77	1858321	1729144	0.012	288	268
SPITBOL	2863	(2)	35.90	765361	706251	0.012	264	244
ALGOLW	1677	(1)	43.11	359318	417393	0.023	212	248
ASMG	1352	(1)	18.44	230272	372372	0.012	168	272
SIMON	377	(0)	0.67	8089	17549	0.000	20	44
LISP	289	(0)	2.07	16859	45192	0.004	56	156
PLUTO	230	(0)	2.47	29232	44404	0.008	124	192
ASSIST	119	(0)	0.92	30203	44701	0.004	252	372
TOTAL	171028		1963.22	24416020	31890406	0.011	142	186

*SP/K, SPSSQ, and SNAP

```
ALL TERMINALS                                          JOB VOLUME FOR 01/05/75 - 31/05/75
CLASS = W                                                 (AVERAGE OVER 31 DAYS)

                                                  # JOBS WHICH BEGAN EXECUTION AT INDICATED TIME
                                      25   50   75  100  125  150  175  200  225  250  275  300  325  350  375  400  425  450  475  500
                        |#JOBS|TOD|----+----+----+----+----+----+----+----+----+----+----+----+----+----+----+----+----+----+----+----+
                        |    1|   |
PROCESSOR #USES    %    |    2|   |
WATFIV   117906 (68)    |   18|  1|666
PL/C      22130 (12)    |   12|   |66
OTHER*    10608 ( 6)    |   14|  2|66
UTILITY    7042 ( 4)    |   13|   |66
WATBOL     6435 ( 3)    |   11|  3|66
SPITBOL    2863 ( 1)    |    7|   |6
ALGOLW     1677 ( 0)    |    6|  4|6
ASMG       1352 ( 0)    |    5|   |6
SIMON       377 ( 0)    |    3|  5|
LISP        289 ( 0)    |   10|   |66
PLUTO       230 ( 0)    |    0|  6|
                        |    1|   |
                        |    0|  7|
                        |    2|   |
                        |   21|  8|6666
                        |   33|   |666666
                        |   49|  9|666666666
                        |   77|   |666666666666666
                        |  117| 10|66666666666666666666666
                        |  155|   |6666666666666666666666666666666
                        |  180| 11|666666666666666666666666666666666666
                        |  191|   |66666666666666666666666666666666666666
                        |  193| 12|66666666666666666666666666666666666666
                        |  184|   |666666666666666666666666666666666666
                        |  184| 13|666666666666666666666666666666666666
                        |  229|   |666666666666666666666666666666666666666666666
                        |  248| 14|6666666666666666666666666666666666666666666666666
                        |  273|   |666666666666666666666666666666666666666666666666666666
                        |  279| 15|6666666666666666666666666666666666666666666666666666666
                        |  295|   |66666666666666666666666666666666666666666666666666666666666
                        |  310| 16|66666666666666666666666666666666666666666666666666666666666666
                        |  328|   |66666666666666666666666666666666666666666666666666666666666666666
                        |  298| 17|66666666666666666666666666666666666666666666666666666666666
                        |  268|   |66666666666666666666666666666666666666666666666666666
                        |  191| 18|66666666666666666666666666666666666666
                        |  185|   |6666666666666666666666666666666666666
                        |  174| 19|6666666666666666666666666666666666
                        |  196|   |666666666666666666666666666666666666666
                        |  190| 20|66666666666666666666666666666666666666
                        |  196|   |666666666666666666666666666666666666666
                        |  174| 21|6666666666666666666666666666666666
SHIFT   #JOBS           |  165|   |666666666666666666666666666666666
0 - 8    3532           |    6| 22|6
8 - 4   84169           |    0|   |
4 - 12  83327           |    0| 23|
                        |    0|   |
                         5517|   | 8-SERVICE FACTOR(2.0) || 6-SERVICE FACTOR(1.0) || 4-SERVICE FACTOR(.75)

TOTAL JOBS AT SF .75 (UNAVERAGED)      0          *SP/K, SPSSQ, and SNAP
TOTAL JOBS AT SF 1.0 (UNAVERAGED)171028
TOTAL JOBS AT SF 2.0 (UNAVERAGED)      0
TOTAL JOBS AT ALL SF (UNAVERAGED)171028
```

INTERACTIVE SYSTEMS RELIABILITY

The uptimes achieved for the month of May for each of APL and ATS were 99.69% and 99.73% of scheduled operation, respectively. The number of scheduled hours of operation during the month of May totalled 472, while the number of unscheduled IPL's per day was 0.03. In addition to the scheduled time, APL and ATS were also available for approximately 128 hours of unattended weekend operation.

The percentage breakdown of total system downtime for April was: Hardware - 58 minutes (75.64%); Other - 19 minutes (24.36%). One unscheduled and three late IPL's were required as a result of the failures.

Kam Jain

DATE	DOWNTIME (mins)		REASON
	APL	ATS	
Tue. May 6	7	9	Late IPL due to IBM Maint.
Mon. May 12	10	-	File Subsystem EC!! (OPERATIONAL)
Tue. May 13	6	9	Date check on SPOOL1 (HARDWARE)
Wed. May 14	7	-	Machine check (HARDWARE)
Thu. May 15	8	10	Late IPL - Equip. check during file restore
Tue. May 27	49	47	*1052 Console locked (HARDWARE)
Total	87	75	*IPL Required

System Failures May 1 to May 31, 1975

INTERACTIVE TERMINAL DEMONSTRATIONS

The series of interactive terminal demonstrations which have taken place during the last few months will be discontinued until the fall term. Users interested in obtaining information about terminals should contact Ian Darwin at 928-7318.

Ian Darwin

ATTENTION INTERACTIVE TERMINAL USERS

ONTEL Corporation has advised UTCC that local servicing and support is now available for the ONTEL APL terminal which was demonstrated recently at UTCC. Enquiries should be directed to the ONTEL Corporation.

Ian Darwin

OUTPERFORM — MUSIC SYNTHESIS PROGRAM

The Faculty of Music's Electronic Music Studio, under the direction of Professor Gustav Ciamaga, is currently operating a music synthesis program on the S/370-165-II called OUTPERFORM. This program is a revised version of a program called PERFORM, written by David Cohen of the University of Arizona. It was revised by Gerry Lester and David Jaeger and retitled OUTPERFORM (Of U of T PERFORM).

OUTPERFORM is used primarily by graduate students in theory and composition enrolled in Professor Ciamaga's Electronic Music Seminar.

OUTPERFORM users enter data via card decks. Functions are stored and used to generate various waveforms (predominantly sine-synthesis type) and amplitude governing envelopes. A series of "note cards" organize the function types with respect to frequency, duration, amplitude and several other features of compositional manipulation of sound.

OUTPERFORM is a three step process. First, the sound pressure wave data is converted from the input data and stored on magnetic tape. This first tape is then converted to a secondary magnetic tape, where all the data are scaled to be within the limits of the digital to analog converter system to be used. The third step, generating the audio tape from the digital tape, takes takes place at the Computer Research Facility, where the GT-44's Laboratory Peripheral System generates the necessary analog voltages.

Recently, Daniel Guerin, CRF's Systems Programmer, has contributed to OUTPERFORM's ease of operation by writing all the necessary programs for TSO operation, as well as graphics support on the GT-44 which allows the converted audio waveforms to be displayed on a CRT.

Since the first use of OUTPERFORM by David Jaeger in 1972, many interesting works have been realized at UTCC. Norma Beecroft, a well known Toronto composer, is currently utilizing a Canada Council grant by composing a work with OUTPERFORM.

There are many features of OUTPERFORM that have not yet been fully exploited and thus it should continue to be a service of interest to composers and students of the Faculty of Music.

Bruce Pennycook
ELECTRONIC MUSIC STUDIO

LONG DISTANCE TELEPHONE LINE CHARACTERISTICS EXPERIMENT

In the summer of 1974, an experiment was performed to measure and record the transmission characteristics of long distance telephone lines across Canada. Three Ontario universities, Toronto, McMaster and Queen's, took part in the joint study headed by Gord Lang of Electronic Systems Engineering Limited (E.S.E.) Limited. The University of Toronto group was headed by Professor B. Black and included five Electrical Engineering graduate students – J. Arnason, A. Brown, J. Enekes, W. Rosocha and M. Valenti.

cont'd...

TELEPHONE LINE Cont'd.

Studies of telephone line characteristics are performed regularly by telephone companies and government agencies around the world. These studies usually consist of a series of transmissions of known signals through the telephone lines under test, to a receiver where measurements such as amplitude, frequency response, frequency offset, phase jitter, delay, and noise burst detection are made. These measurements are usually made in real time, that is, the measurements are made at the receiver while the signals are being transmitted. Unfortunately, many expensive instruments are required to perform the various tests. In addition, it is quite time consuming to set up and operate them.

The study undertaken at the University of Toronto, however, used a different technique. The transmitted signal was received in the CRF lab., was digitized at a rate of 7200 samples/sec. by the Laboratory Peripheral System connected to the GT-44 computer system, and was stored on a 9 track magnetic tape. Thus, a "data base" of telephone signals was created, and the actual parameter measurements were performed off-line by running various programs against the data tapes on the S/370-165-II.

There are several advantages to this approach. A permanent record of the telephone line characteristics is created, allowing many different tests to be performed on any portion of the data. This "instant replay" feature allows many data correlation experiments to be performed which are not possible with the real time approach. Analog recording and measuring in real time typically yields a signal to noise ratio (SNR) of something less than 40 dB. The dynamic range of the Laboratory Peripheral System, however, is in the order of 66 dB.

This project involved telephone line characteristic measurements across Canada. Transmissions were made from St. John's, Newfoundland, from Vancouver, British Columbia, and from seven cities in between. Forty-seven calls were recorded, resulting in 300 million bytes of data stored.

The transmitter-receiver electronics, designed and constructed by Al Brown and John Arnason, is a sophisticated sequencing device which automatically changes transmitting signals and receiver gains, which eliminates about 95% of the time consuming and error causing manual protocol usually required between the transmitter and receiver. The GT-44 computer system running the CRFDATA software package made the acquisition and storage of the data an easy task. The stored data could be immediately displayed on the graphics display, providing operator confidence that the data collected was valid. Final processing routines were developed by W. Rosocha, J. Enekes and M. Valenti on the S/370-165-II.

cont'd...

TELEPHONE LINE Cont'd.

The collected "data base" is being made available to other researchers interested in writing their own analysis packages.

W. Rosocha
T.C. Stevens

SHARE THE WEALTH -- NEW APL PROGRAMS IN THE PUBLIC LIBRARIES

DATATALK will help users save their APL programs that may be of general interest to other users, into the public libraries numbered between 500 and 1000.

DATATALK will undertake to support these programs for general use until adequate documentation becomes available for them, at which point they will be migrated into a public library numbered less than 500, and become fully supported by UTCC staff.

Call us at 928-6710 and we'll take it from there.

Ernst Goetze

DATATALK DIAL-LOGS

University of Toronto DATATALK, every day, all summer, 10 a.m. to 10 p.m., Monday through Friday. If all you really need are answers, call us at at 928-6710.

DATATALK: Good morning, University of Toronto DATATALK...
C: Hello. What's $25 worth in one year at 6 and 1/2 per cent compounded annually and semi-annually?
D: Well...If the interest is compounded annually, then you've got $25 plus 6 and 1/2 per cent of $25 in one year...which is $26.63.
D: On the other hand, if you compound semi-annually, you'll get one half of 6 and 1/2 per cent twice in one year...so.. $26.65.
C: Right. Thank you.

……………………………

DATATALK: Good morning, DATATALK services...
C: Hello. I was told that maybe you could help me?
D: Yes...
C: Well, can you calculate a Friedman statistic? It's like a ranked chi-squared.
D: Ahm...I'm not sure. That is, I'm not familiar with that statistic.
C: Well...
D: Can you describe the statistic?
C: Yes. At least the part that I need.

cont'd...

DATATALK DIAL-LOGS Cont'd.

C: What I have is 24 observations of 3 variables each. What I want is the sum of the columns, the sum of the squares of the sums, multiply by...ah...6, and subtract 12 x 24.

D: Fine. Read the observations to me then, one column at a time would be most convenient...

....

DATATALK: Good morning, DATATALK services...

C: Hi! If I give you the per cents and some dollar figures, can you calculate the percentage breakdowns?

D: What are the per cents?

C: 3.4 twice, 12.5 twice, 11.1, 13.5 twice, 6.1, 17.0 and 6.1...per cent.

D: And the dollar figures?

C: 25.50, 28.18, 95.40 and 34.50.

D: Then, for the 3.4%, it's 0.87, 0.96, 3.24 and 1.17 dollars, for...

C: Good. Would you send them?

D: Yes. Thank you for calling.

C: Thank you. Bye now.

COMPUTERNEWS QUESTIONNAIRE

Dear COMPUTERNEWS Subscriber:

In attempting to evaluate and improve our newsletter, we have drawn up this brief questionnaire. Your efforts in completing this questionnaire and returning it to us as soon as possible would be greatly appreciated.

1. a) Each month, various technical articles appear in COMPUTERNEWS. Do you feel such technical information should be included in the newsletter?

   YES ( ) NO ( )

   b) If YES, would you like to see:

   MORE ( ) AS IS ( ) LESS ( )

   of these articles appear in COMPUTERNEWS?

   c) How do you rate the technical articles? Do you find them clear, precise, and instructive?

   COMMENTS: ________________________________

   ____

   ____

2. a) HSJS, S/370-165-II Reliability, and Interactive Systems Reliability statistics report articles appear each month in COMPUTERNEWS. Do you feel these articles should be continued?

   YES ( ) NO ( )

   b) If YES, would you like to see them expanded upon to include more graphs and data?

   PLEASE SPECIFY: ________________________________

   ____

   ____

3. Is there any system which you feel is insufficiently represented in COMPUTERNEWS?

   ( ) System/370 Services
   ( ) Interactive Terminal Systems
   ( ) Computer Research Facility
   ( ) DATATALK
   ( ) Other ______________________(please specify)

   WHY: ____

   ____

   ____

4. a) I find the COMPUTERNEWS cover page:

   EXCELLENT ( ) GOOD ( ) FAIR ( ) POOR ( )

   b) Suggestions and comments regarding colour, general design, etc.

   ____

   ____

   ____

5. a) I find the general layout of the newsletter:

   EXCELLENT ( ) GOOD ( ) FAIR ( ) POOR ( )

   b) Do you prefer the present two-column page layout or did you find the one-column page layout more effective?

SUGGESTIONS AND COMMENTS ______________________________

____

____

6. a) Do you feel that the Directory List, which appears as a supplement in COMPUTERNEWS each month, provides sufficient systems information?

   YES ( ) NO ( )

   b) If NO, is there any additional information which you feel should be or would like to see included?

   ____

   ____

7. The best section in COMPUTERNEWS is:

( ) General News
( ) System/370 Services
( ) Interactive Terminal Systems
( ) Computer Research Facility
( ) DATATALK

WHY? ____

____

8. The poorest section in COMPUTERNEWS is:

( ) General News
( ) System/370 Services
( ) Interactive Terminal Systems
( ) Computer Rsearch Facility
( ) DATATALK

WHY? ____

____

____

9. General Remarks:

FOLD-----FOLD-----FOLD-----FOLD-----FOLD-----FOLD

COMPUTERNEWS QUESTIONNAIRE
Computer Centre
Room 125
Sir Sandford Fleming Labs.
University of Toronto
TORONTO, Ontario
M5S 1A1

REGISTRATION FOR INTRODUCTION TO APL

Please enroll me in the course entitled INTRODUCTION TO APL.

NAME ____
(FIRST) (LAST)

CAN# ____

CAN HOLDER'S NAME ________________________________

Mailing address **including city or borough**. If you have a university address please use it. (Please be sure that you are known at the address you give — we have received numerous undeliverable rejects in the past).

____

____

____

DEPARTMENT ______________________

OR MAJOR COURSE ____________ PHONE ______

Confirmation of this course will be sent to the above address along with the room number in which the course will meet.

FOLD-----FOLD-----FOLD-----FOLD-----FOLD-----FOLD

EDUCATION SCHEDULE
Computer Centre
Room 128
Sir Sandford Fleming Labs.
University of Toronto
TORONTO, Ontario
M5S 1A1

UTCC DIRECTORY

	ROOM	PHONE 928-
DIRECTOR		
John C. Wilson	SF143	6496
ASSOCIATE DIRECTOR		
Al Heyworth	SF116	4936
ADMINISTRATION MANAGER		
Anthony Pieterse	SF137	8948
INFORMATION OFFICE		
General Inquiries	SF128	4990 or 4991
Don Gibson	SF128A	
MANAGER, SERVICES		
Stan Yagi	SG200	7331
SUPERVISOR, MARKETING SERVICES		
Dave Scobie	SG201	6877
TERMINAL CO-ORDINATORS		
Sandford Fleming Terminal		
Mark Tapia	SF125	7109
Program Advisors	SF117	8599
Erindale		
Vaughan Lawrason		828-5311
Scarborough		
Ralph Lombardi		284-3173
Arts and Science		
Marlene Domoney	SS2104	6509
Management Studies		
Paul Roth		4917
MANAGER, APPLICATIONS SUPPORT		
Joyce Walton	SG204	6875
MANAGER, OPERATIONS		
Derry Cox	SF113	7092
MANAGER, SYSTEMS		
Rein Mikkor	SF113	5058
SYSTEM HARDWARE SUPERVISOR		
Eugene Siciunas	SF113	4967
SUPERVISOR, 7094 SERVICES		
William Beasley	NP1207	7094
MANAGER, COMPUTER RESEARCH FACILITY		
Dennis Smith	SF214B	4800
LAB CO-ORDINATOR (CRF)		
Krishna Patnaik	SF207	8858

CONTRACT PROGRAMMING	ROOM	PHONE
Dave Scobie	SG201	6877
AUTHORIZATION CLERK		
Yvonne Bowen	SF139	8703
ASSISTANT MANAGER, INFORMATION SYSTEMS TERMINAL		
George Milo		5040

NOTE:

SF = Sandford Fleming
SG = 49 St. George
NP = McLennan Physical (New Physics)
SS = Sydney Smith

JOB AND SYSTEM STATUS QUERIES	
SYSTEM/370, TSO	7373
ATS/APL	6234
7094	7094
2741 TERMINAL MALFUNCTIONS	7107
029 KEYPUNCH MALFUNCTIONS	6465

SERVICES	DIAL-UP	ADVICE
APL	7200	6710
ATS	7100	7107
TSO - 2741	7303	8599
TSO - TTY (10 cps)	7390	8599
TSO - TTY (30 cps)	7386	8599
DATATALK	6710	6710

UTCC COMPUTER EQUIPMENT

SYSTEM/370 MODEL 165-II

- located in SF103/105/112
- provides General Purpose Job Stream, High Speed Job Stream and TSO services
- 3072K bytes of memory
- 1 drum
- 13 disk drives (3330)
- 8 disk drives (2314)
- 6 magnetic tape drives (4 9-track and 2 7-track)
- 6 display consoles
- 6 printers
- 5 card readers
- 1 card punch
- 8 remote batch terminals
- 1 paper tape reader
- Calcomp plotters (11" and 30")
- Gould plotter (11")
- OS/MVT with HASP

SYSTEM/360 MODEL 65

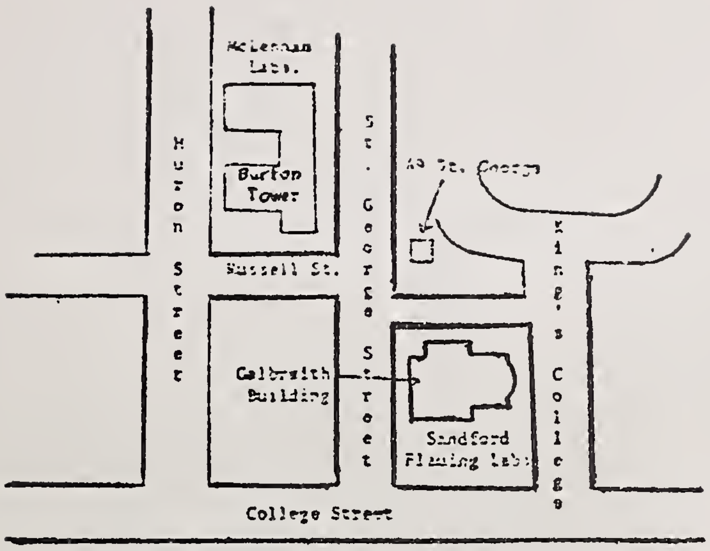
- located in McLennan Physical Laboratories
- provides Interactive Systems Service
- 1536K bytes of core
- 24 disk drives (2314)
- 3 9-track magnetic tape drives
- 1 printer
- 1 card reader
- 1 card punch
- 140 typewriter terminals
- OS/MVT with APL, ATS

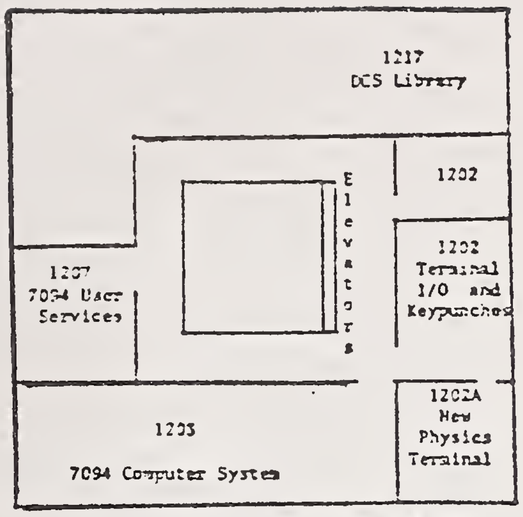
7094 II

- located in Room 1203 Burton Tower
- 32K words of core
- 1 disk
- 8 magnetic tape drives
- input/output via a 1401 computer

COMPUTER RESEARCH FACILITY

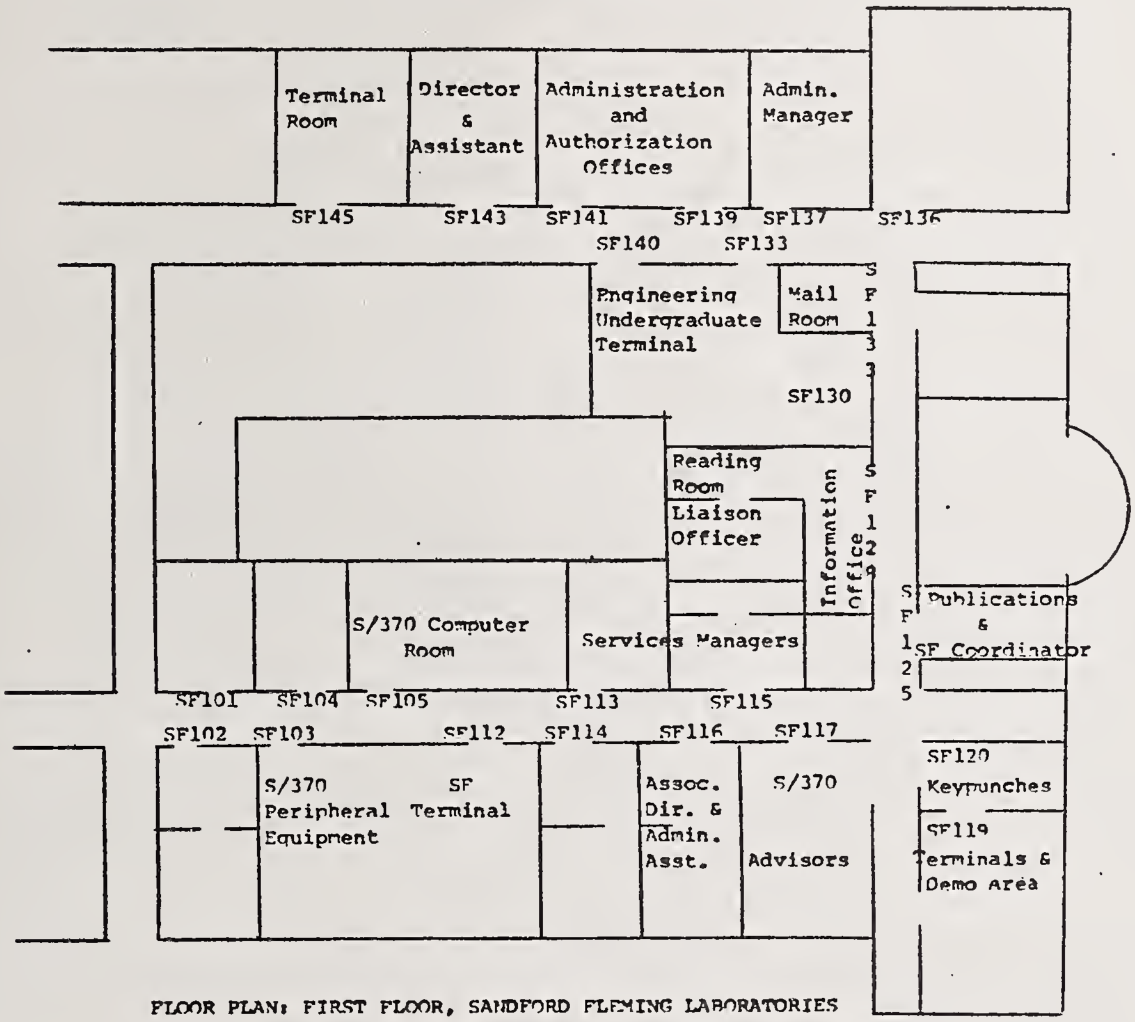
- located in SF207
- DEC GT44 Systems with
  - 1 PDP-11/40 CPU
  - 2 9-track dual density tape drives
  - 1 1000 cpm card reader
  - VT17 graphics display unit
  - 1 lab. peripheral system with A/D & D/A
  - 1 CVI 260 Video Bandwidth Compressor
- DEC GT40 System with
  - 1 PDP-11/10 CPU
  - 1 2314 tape disk drive
  - 1 VT12 graphic display unit
  - 9-track/800 BPI tape drive
  - 1 Calcomp microfilm plotter



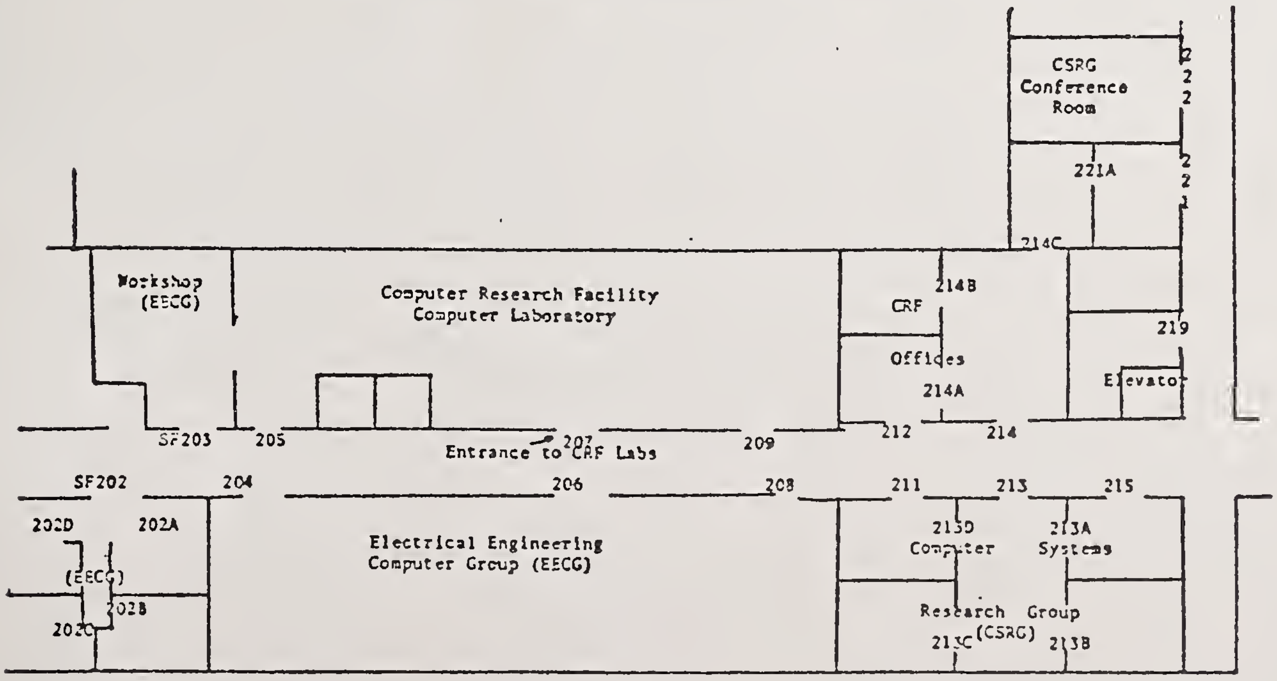


FLOOR PLAN: TWELFTH FLOOR, BURTON TOWER

UNIVERSITY OF TORONTO COMPUTER CENTRE



FLOOR PLAN: FIRST FLOOR, SANDFORD FLEMING LABORATORIES



FLOOR PLAN: SECOND FLOOR, SANDFORD FLEMING LABORATORIES

UNIVERSITY OF TORONTO
COMPUTER CENTRE,
TORONTO, CANADA.